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127, SUGAR AND SALT, Confectionery.

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PROVISIONAL SPECIFICATION.

Improvements in and relating to Boiling Sugar and other Syrups.

I, EDWARD SHAW, of 9, Lower Castle Street, Bristol, Engineer, do hereby declare the nature of this invention to be as follows :—

This invention relates to boiling sugar, glucose and other syrups. It has special reference to the process of boiling syrups in steam-jacketted pans with auxiliary steam-heated coils.

According to this invention, the auxiliary coil is not a fixture in the pan, but is so constructed and fitted that it can be placed therein and withdrawn therefrom at will, during the operation of boiling the syrup. When the coil is withdrawn, the pan may be tilted for discharge of the syrup.

Under one arrangement, the coil is hinged by a suitable pivot to the pipe by which steam is supplied, and the coil may be lowered into and raised out of the pan.

Under another arrangement, the coil is suspended by a chain, lever or cord connected at one end to the coil, and at the other, to a balance weight. The chain or cord is passed over a pulley and the coil is lowered into and raised out of the pan through the medium of the weight and chain, lever or cord.

The coil is connected to the steam supply pipe by a flexible pipe such as two or three convolutions of copper pipe, or by a pipe of india-rubber or other suitable flexible material.

Dated this 15th day of February 1896.

NICHOLAS WATTS.
Bristol, Chartered Patent Agent.

COMPLETE SPECIFICATION.

Improvements in and relating to Boiling Sugar and other Syrups.

I, EDWARD SHAW, of 9, Lower Castle Street, Bristol, Engineer, do hereby declare the nature of this invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement :—

This invention relates to boiling sugar, glucose and other syrups. It has special reference to the process of boiling syrups in steam-jacketted pans with auxiliary steam-heated coils.

According to this invention, the auxiliary coil is not a fixture in the pan, but is so constructed and fitted that it can be placed therein and withdrawn therefrom, at will, during the operation of boiling the syrup. When the coil is withdrawn, the pan may be tilted for discharge of the syrup.

Referring to the accompanying sheets of illustrative drawings, Fig. 1 thereon represents a steam-jacketted pan *a* such as is commonly used for boiling sugar and other syrups in the manufacture of sweetmeats. Fig. 2 is an end view. The pan *a* is free to swing on hollow trunnions supported in the standards *b*. The pipe *c* by

[*Price* 8*d*.]

which steam is supplied to the jacket a^1 of the pan a is passed through one of the hollow trunnions. Similarly, the escape pipe c^1 for carrying off steam from the [illegible] is led out through the other trunnion. The coil d, employed, as is usual, [illegible] in the process of boiling the syrup charged into the pan a, is, [illegible] this invention, removable. It is, under the arrangement illustrated in [illegible]nying drawings, secured to the lid e of the pan a. The connection to [illegible] made by soldering or otherwise securing the pipe d^1 by which steam is [illegible]d to the coil, and the pipe d^2, by which the steam is discharged after circulation through the coil, to the sleeve e^1 extended down from the underside of the lid e. Or the pipes d^1 and d^2 may be otherwise secured to the lid e. Attached to the lid e is a chain f which is carried over a pulley g placed in a suitable position. To the other end of the chain f is connected a balance weight h. Vapour from the syrup is carried off by the chimney i which is telescopic to enable it to be raised and lowered. As shown at Fig. 2, and in plan at Fig. 3, the pipes d^1 and d^2 are pivotted to a wall bracket j. By means of the chain f and the balance weight h the lid e with the coil d are made capable of being readily withdrawn and returned to the pan a which, when the said lid and coil have been tilted clear, can then be tipped on its trunnions.

Instead of combining the coil with the lid as above described and shown in the drawings, they may be separate and, further, the coil need not be pivotted, so as to work direct about a centre, but may be raised and lowered in a straight line by a chain and counterweight, or by like or equivalent means; the steam connections having loose working joints.

Under another arrangement, the coil is connected to the steam supply pipe by a flexible pipe such as two or three convolutions of copper pipe, or by a pipe of india-rubber or other suitable flexible material.

Having now particularly described and ascertained the nature of this invention, and in what manner the same is to be performed, I declare that what I claim is :—

In apparatus for boiling sugar and other syrups, consisting of a steam-heated, steam-jacketted, or other boiling pan, and an auxiliary steam-heated coil; arranging and fitting the said auxiliary coil so that it is capable of being raised out of and lowered into the pan, at will, either by means of a balance-weighted chain passed over a pulley and attached either directly or indirectly to the coil, or by pivotting the steam pipes of the coil outside the pan to a suitable support, or by combining both these arrangements, or by like or analogous means.

Dated this 17th day of December 1896.

NICHOLAS WATTS,
Bristol, Chartered Patent Agent.

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